MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

Federal Operating Permit Number: 104701849

For: HIGH DESERT POWER PROJECT, LLC

Facility: HIGH DESERT POWER PROJECT, LLC

Issued Pursuant to MDAQMD Regulation XII Effective Date: September 18, 2011

This Federal Operating Permit Expires September 18, 2016

Issued By: Eldon Heaston
Executive Director
Air Pollution Control Officer

14306 PARK AVENUE, VICTORVILLE, CALIFORNIA 92392 PHONE (760) 245-1661 FAX (760) 245-2022

PERMIT REVISIONS

October 3, 2011 Administrative Permit Change (by: Samuel J Oktay, PE); changed SCR manufacturer on equipment reference to Cormetech from Babcock Hitachi. Permits affected are: C005272, C005273, and C005274; pages affected I-6, and III-33. Rule 442 updated, page affected II-13.

March 21, 2011 Administrative Permit Renewal (by: Samuel J Oktay, PE); Revised Rule 1113 references, Page II-17 through II-18; added Rule SIP History Reference, Page VII-51; Added requirements of 40 CFR Part 68; Risk Management Program on Page II-21. Revised Condition 9; Page III-29. Permit is revised 05-11-11 with a re-issue date effective September 18, 2011 and a new expiration date of September 18, 2016. During the interim period, the previous Title V permit, with an expiration date of September 18, 2011, remains in effect.

October 07, 2008 Administrative Permit Modification described as follows:

Page I-4 and Pages III-35 through III-38 changed to reflect latest permit requirements for E008159 and E008665. (by Bill Weese)

May 06, 2008 Administrative Permit Modification described as follows:

Page I-4 changed to reflect a change in Responsible Official to Todd S. Jonas, Vice President. (by Bill Weese)

MDAQMD Federal Operating Permit High Desert Power Project Federal Operating Permit # - 104701849 Last Revised: 10-03-11

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PART I INTRODUCTORY INFORMATION

A. FACILITY IDENTIFYING INFORMATION:

Owner/Company Name: HIGH DESERT POWER PROJECT, LLC

Owner Mailing Address: HIGH DESERT POWER PROJECT, LLC

19000 Perimeter Road Victorville, CA 92394

Facility Name: HIGH DESERT POWER PROJECT, LLC

Facility Location: HIGH DESERT POWER PROJECT, LLC

19000 Perimeter Road Victorville, CA 92394

MDAQMD Federal Operating Permit Number: 104701849

MDAQMD Company Number: 1047

MDAQMD Facility Number: 01849

Responsible Official:Todd S. JonasTitle:Vice PresidentPhone Number:(402) 691-9500

Facility "Site" Contact #1: Jon Boyer

Title: Environmental Manager

<u>Phone Number:</u> (760) 530-2312

(760) 530-2300

Nature of Business: Electric Power Generation

SIC Code:4911 – Electric Power GenerationORIS Code:0329 – Phase II Acid Rain SourceFacility Location:UTM (Km) 466.545E / 3828.060N

High Desert Power Project, LLC, is a new power generating plant located in Victorville, California. The plant uses three F-Class Westinghouse combustion turbine generators (CTGs) with dedicated heat recovery steam generators (HRSGs) to produce electricity. Inlet air to the CTGs is filtered and conditioned, with cooling water supported by a mechanical draft wet cooling tower. Compressed air and natural gas are mixed and combusted in the turbine combustion chamber. Lean pre-mixed air and low NOx combustors are used to minimize NOx formation during combustion. Exhaust gas heat from each CTG is recovered in a dedicated HRSG, in which steam is produced to drive a dedicated condensing steam turbine generator (STG) connected to an electric power generator. Each HRSG is equipped with a natural gas-fired duct burner to provide supplementary firing during high ambient temperatures to maintain constant steam production to the STG.

A Selective Catalytic Reduction (SCR) system to control NOx emissions and high temperature oxidation catalyst to control CO and VOC emissions is located inside each HRSG.

The STG exhaust steam is routed for condensing to a surface condenser with water pumped in from a twelve-cell wet cooling tower by circulating water pumps. Make-up water to the circulating water system is clarified raw water supply. Blowdown from the cooling tower side stream treatment system drains into a wastewater brine storage tank. Treated water is recycled to the cooling tower or discharged to underground injection wells.

One Cummins diesel-fired internal combustion engine is used to drive an emergency firewater pump. One Caterpillar diesel-fired internal combustion engine is used to drive an emergency power generator. One Perkins Diesel-fired internal combustion engine is used to drive a portable water pump. Two silos containing soda ash and lime provide chemical feed for the cooling tower blowdown system. Equipment designated as insignificant activities also are present onsite but are exempt from District permit requirements.

1. PART III, ITEM A:

MDAQMD PERMIT NUMBER B005266: COMBUSTION TURBINE GENERATOR 3F-1, consisting of: Natural gas fueled Westinghouse 501F combustion turbine generator power block with a connected heat recovery steam generator and steam condensing turbine, maximum heat input of 1711 MMBtu/hr and producing a nominal 250 MW(e).

MDAQMD PERMIT NUMBER B005267: COMBUSTION TURBINE GENERATOR 3F-2, consisting of: Natural gas fueled Westinghouse 501F combustion turbine generator power block with a connected heat recovery steam generator and steam condensing turbine, maximum heat input of 1711 MMBtu/hr and producing a nominal 250 MW(e).

MDAQMD PERMIT NUMBER B005268: COMBUSTION TURBINE GENERATOR 3F-3, consisting of: Natural gas fueled Westinghouse 501F combustion turbine generator power block with a connected heat recovery steam generator and steam condensing turbine, maximum heat input of 1711 MMBtu/hr and producing a nominal 250 MW(e).

2. PART III, ITEM B:

MDAQMD PERMIT NUMBER B005269: DUCT BURNER 3F-1: COEN Company, Inc. natural gas burner located within the heat recovery steam generator covered by B005266, maximum heat input of 160 MMBtu/hr.

MDAQMD PERMIT NUMBER B005270: DUCT BURNER 3F-2: COEN Company, Inc. natural gas burner located within the heat recovery steam generator covered by B005267, maximum heat input of 160 MMBtu/hr.

MDAQMD PERMIT NUMBER B005271: DUCT BURNER 3F-3: COEN Company, Inc. natural gas burner located within the heat recovery steam generator covered by B005268, maximum heat input of 160 MMBtu/hr.

3. PART III, ITEM C:

<u>MDAQMD PERMIT NUMBER C005272</u>: SCR UNIT 3F-1: a Cormetech selective catalytic reduction system with a catalyst located within the combustion turbine generator covered by B005266 and an ammonia injection system.

<u>MDAQMD PERMIT NUMBER C005273</u>: SCR UNIT 3F-2: a Cormetech selective catalytic reduction system with a catalyst located within the combustion turbine generator covered by B005267 and an ammonia injection system.

<u>MDAQMD PERMIT NUMBER C005274</u>: SCR UNIT 3F-3: a Cormetech selective catalytic reduction system with a catalyst located within the combustion turbine generator covered by B005268 and an ammonia injection system.

4. PART III, ITEM D:

MDAQMD PERMIT NUMBER C005275: OXIDATION CATALYST 3F-1: High temperature

oxidation catalyst manufactured by EmeraChem ADCAT CO Oxidation Catalytic Systems located within the combustion turbine generator covered by B005266 designed to minimize emissions of VOC and CO.

MDAQMD PERMIT NUMBER C005276: OXIDATION CATALYST 3F-2: High temperature oxidation catalyst manufactured by EmeraChem ADCAT CO Oxidation Catalytic Systems located within the combustion turbine generator covered by B005267 designed to minimize emissions of VOC and CO.

MDAQMD PERMIT NUMBER C005277: OXIDATION CATALYST 3F-3: High temperature oxidation catalyst manufactured by EmeraChem ADCAT CO Oxidation Catalytic Systems located within the combustion turbine generator covered by B005268 designed to minimize emissions of VOC and CO.

5. PART III, ITEM F:

- A. <u>MDAQMD PERMIT NUMBER B005278: COOLING TOWER</u>: Water circulation, treatment and handling equipment and air circulation equipment. Cooling Tower Manufacturer; GEA Integrated Cooling Technologies, Inc. Serial Number; 544246-12B-WCF.
- B. MDAQMD PERMIT NUMBER T010620: SILOS, BULK STORAGE: Two US Filter Zimpro Products Model T-1 bulk chemical handling station cylindrical silos (soda ash and hydrated lime) each 32 feet 11 1/8" H and 12' diameter that are part of the cooling tower blowdown system. Each silo is equipped with a passive bin vent containing 125 square feet of bag filters that handle 500 cfm of pneumatic loading flow (for an air to cloth ratio of 4:1).

6. PART III, ITEM E:

- A. MDAQMD PERMIT NUMBER E008159: FIRE WATER PUMP, DIESEL
- B. MDAQMD PERMIT NUMBER E008665: IC ENGINE, EMERGENCY GENERATOR
- C. MDAQMD Permit Number B009188: Portable Diesel IC Engine Pump.

PART II

FACILITYWIDE APPLICABLE REQUIREMENTS; EMISSIONS LIMITATIONS; MONITORING, RECORDKEEPING, REPORTING AND TESTING REQUIREMENTS; COMPLIANCE CONDITIONS; COMPLIANCE PLANS

A. REQUIREMENTS APPLICABLE TO ENTIRE FACILITY AND EQUIPMENT:

- 1. A permit is required to operate this facility.

 [Rule 203 *Permit to Operate*; Version in State Implementation Plan (SIP) = California Air Resources Board (CARB) Ex. Order G-73, 40 Code of Federal Regulations (CFR) 52.220(c)(39)(ii)(B) 11/09/78 43 Federal Register (FR) 52237; Current Rule Version = 07/25/77]
- The equipment at this facility shall not be operated contrary to the conditions specified in the District Permit to Operate.
 [Rule 203 Permit to Operate; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 3. The Air Pollution Control Officer (APCO) may impose written conditions on any permit. [Rule 204 *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- Commencing work or operation under a permit shall be deemed acceptance of all the conditions so specified.
 [Rule 204 *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 5. Posting of the Permit to Operate is required on or near the equipment or as otherwise approved by the APCO/District.

 [Rule 206 Posting of Permit to Operate; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- Owner/Operator shall not willfully deface, alter, forge, or falsify any permit issued under District rules.
 [Rule 207 Altering or Falsifying of Permit; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) and 52.220(c)(31)(vi)(C) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

- 7. Permits are not transferable.

 [Rule 209 Transfer and Voiding of Permit; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 8. The APCO may require the Owner/Operator to provide and maintain such facilities as are necessary for sampling and testing.

 [Rule 217 Provision for Sampling And Testing Facilities; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(31)(vi)(C) 02/01/77 43 FR 52237; Current Rule Version = 07/25/77]
- 9. The equipment at this facility shall not require a District permit or be listed on the Title V permit if such equipment is listed in Rule 219 and meets the applicable criteria contained in Rule 219 (B). However, any exempted insignificant activities/equipment are still subject to all applicable facility-wide requirements.

 [SIP Pending: Rule 219 *Equipment Not Requiring a Written Permit* as Amended 12/21/94; Prior version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237]
- The Owner/Operator of this facility shall obtain a Federal Operating Permit for operation of this facility.
 [Rule 221 Federal Operating Permit Requirement; Version in SIP = Current, 40 CFR 52.220(c)(216)(i)(A)(2) 02/05/96 61 FR 4217]
- 11. Owner/Operator shall pay all applicable MDAQMD permit fees. [Rule 301 *Permit Fees*; Applicable Version = 10/23/94, Applicable via Title V Program interim approval 02/05/96 61 FR 4217]
- 12. Owner/Operator shall pay all applicable MDAQMD Title V Permit fees. [Rule 312 Fees for Federal Operating Permits; Applicable Version = 10/23/94, Applicable via Title V Program interim approval 02/05/96 61 FR 4217]
- 13. Stack and point source visible emissions from this facility, of any air contaminant (including smoke) into the atmosphere, shall not equal or exceed Ringelmann No. 1 for a period or periods aggregating more than three minutes in any one hour:
 - (a) While any unit is fired on Public Utilities Commission (PUC) grade natural gas, Periodic Monitoring for combustion equipment is not required to validate compliance with the Rule 401 Visible Emissions limit. However, the Owner/Operator shall comply with the recordkeeping requirements stipulated elsewhere in this permit regarding the logging of fuel type, amount, and suppliers' certification information.

- (b) While any unit is fired on diesel fuel, Periodic Monitoring, in addition to required recordkeeping, is required to validate compliance with Rule 401 Visible Emissions limit as indicated below:
 - (i). Reciprocating engines equal or greater than 1000 horsepower, firing on only diesel with no restrictions on operation, a visible emissions inspection is required every three (3) months or during the next scheduled operating period if the unit ceases firing on diesel/distillate within the 3-month time frame.
 - (ii). Diesel Standby and emergency reciprocating engines using California low sulfur fuels require no additional monitoring for opacity.
 - (iii). Diesel/Distillate-Fueled Boilers firing on California low sulfur fuels require a visible emissions inspection after every 1 million gallons diesel combusted, to be counted cumulatively over a 5-year period.
 - (iv). On any of the above, if a visible emissions inspection documents opacity, an U.S. Environmental Protection Agency (EPA) Method 9 "Visible Emissions Evaluation" shall be completed within 3 working days, or during the next scheduled operating period if the unit ceases firing on diesel/distillate within the 3 working day time frame.

[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77] [Rule 401 - *Visible Emissions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77] [40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

- 14. Owner/Operator is limited to use of the following quality fuels for fuel types specified elsewhere in this permit: PUC quality natural gas fuel sulfur compounds shall not exceed 800 parts per million (ppm) calculated as hydrogen sulfide at standard conditions; diesel fuel sulfur content shall not exceed 0.0015 percent by weight. Compliance with Rule 431 fuel sulfur limits is assumed for PUC quality natural gas fuel and CARB certified diesel fuel. Records shall be kept on-site and available for review by District, state, or federal personnel at any time. The sulfur content of non-CARB certified diesel fuel shall be determined by use of American Society for Testing and Materials (ASTM) method D 2622-82 or ASTM method D 2880-71, or equivalent.

 [40 CFR 70.6 (a)(3)(i)(B) Periodic Monitoring Requirements]

 [Rule 431 Sulfur Content of Fuels; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
- 15. Emissions of fugitive dust from any transport, handling, construction, or storage activity at this facility shall not be visible in the atmosphere beyond the property line of the facility. [Rule 403 *Fugitive Dust*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

- Owner/Operator shall comply with the applicable requirements of Rule 403.2 unless an "Alternative PM₁₀ Control Plan" (ACP) pursuant to Rule 403.2(G) has been approved. [**SIP Pending:** Rule 403.2 *Fugitive Dust Control for the Mojave Desert Planning Area* as amended 07/31/95 and submitted 10/13/95]
- 17. Owner/Operator shall not discharge into the atmosphere from this facility, particulate matter (PM) except liquid sulfur compounds, in excess of the concentration at standard conditions, shown in Rule 404, Table 404 (a).
 - (a) Where the volume discharged is between figures listed in the table the exact concentration permitted to be discharged shall be determined by linear interpolation.
 - (b) This condition shall not apply to emissions resulting from the combustion of liquid or gaseous fuels in steam generators or gas turbines.
 - (c) For the purposes of this condition, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

[Rule 404 - Particulate Matter Concentration; Version in SIP = Current, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489]

- 18. Owner/Operator shall not discharge into the atmosphere from this facility, solid PM including lead and lead compounds in excess of the rate shown in Rule 405, Table 405(a).
 - (a) Where the process weight per hour is between figures listed in the table, the exact weight of permitted discharge shall be determined by linear interpolation.
 - (b) For the purposes of this condition, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

[Rule 405 - *Solid Particulate Matter, Weight*; Version in SIP = Current, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489]

19. Owner/Operator shall not discharge into the atmosphere from this facility, from any single source of emissions whatsoever, sulfur compounds, which would exist as a liquid or gas at standard conditions, calculated as sulfur dioxide (SO₂), greater than or equal to 500 ppm by volume.

[Rule 406 - *Specific Contaminants*; Version in SIP = 07/25/77, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489, Subpart (a) only; Current Rule Version = 02/20/79]

- 20. Owner/Operator shall not discharge into the atmosphere from this facility, carbon monoxide (CO) exceeding 2000 ppm measured on a dry basis, averaged over a minimum of 15 consecutive minutes.
 - (a) The provisions of this condition shall not apply to emissions from internal combustion engines.

[Rule 407 - *Liquid and Gaseous Air Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

- 21. Owner/Operator shall not build, erect, install, or use any equipment at this facility, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission that would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the Health and Safety Code or of District Rules.
 - (a) This condition shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code, or of District Rule 402. [Rule 408 *Circumvention*; Version in SIP = CARB Ex. Order G-73, 40 CFR
- Owner/Operator shall not discharge into the atmosphere from this facility from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO₂) at standard conditions averaged over a minimum of 25 consecutive minutes.
 [Rule 409 Combustion Contaminants; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]
 Reference Section III A(1)

52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/771

- 23. APCO, at his/her discretion, may refrain from enforcement action against an Owner/Operator of any equipment that has violated a technology-based emission limitation, including but not limited to conditions contained in any permit issued by the District establishing such emission limitation, provided that a Breakdown has occurred and:
 - (a) Any breakdown that results in emissions exceeding a technology-based emission limitation is reported to the District within one hour of such breakdown or within one hour of the time a person knew or reasonably should have known of the occurrence of such breakdown; and
 - (b) An estimate of the repair time is provided to the District as soon as possible after the report of the breakdown; and
 - (c) All reasonable steps are immediately taken to minimize the levels of emissions and to correct the condition leading to the excess emissions.
 - (d) The equipment is operated only until the end of a cycle or twenty-four (24) hours, whichever is sooner, at which time it shall be shut down for repairs unless a petition for an emergency variance has been filed with the clerk of the Hearing Board in accordance with Regulation V.
 - (e) If the breakdown occurs outside normal District working hours, the intent to file

an emergency variance shall be transmitted to the District in a form and manner prescribed by the APCO.

[SIP Pending: Rule 430 - *Breakdown Provisions* as amended 12/21/94 and submitted 02/24/95]

- 24. Owner/Operator of this facility shall not discharge into the atmosphere emissions in excess of the following from VOC containing materials or from organic solvents which are not VOCs unless such emissions have been reduced by at least 85%:
 - (a) VOCs from all VOC containing materials, Emissions Units, equipment or processes subject to this rule, in excess of 540 kilograms (1,190 pounds) per month per Facility.
 - (b) a non-VOC organic solvent in excess of 272 kilograms (600 pounds) per day as calculated on a thirty (30) day rolling average.
 - (c) The provisions of this condition shall not apply to:
 - (1) The manufacture of organic solvents, or the transport or storage of organic solvents, or the transport or storage of materials containing organic solvents.
 - (2) The emissions of VOCs from VOC-containing materials or equipment which are subject to the rules of Regulation IV or which are exempt from air pollution control requirements by said rules.
 - (3) The spraying or other employment of organic solvents as insecticides, pesticides or herbicides.
 - (4) The use of equipment or materials for which other requirements are specified in source specific rules of Regulation XI after the compliance dates specified in such source specific rules.
 - (5) The use of 1-1-1 Trichloroethane.
 - (6) Aerosol products

[**SIP**: Rule 442 – *Usage of Solvents*, As Amended Adopted; 9/17/2007, 72 FR 52791, 40 CFR 52.220(c)(347)(i)(C)(1)]

- Owner/Operator shall not set open outdoor fires unless in compliance with Rule 444. Outdoor fires burned according to an existing District permit are not considered "open outdoor fires" for the purposes of Rule 444 (reference Rule 444(B)(10)). [Rule 444 *Open Outdoor Fires*, Version in SIP = Current, 40 CFR 2.220(c)(42)(xiii)(A) and 40 CFR 52.273 (6)(12)(i)]
- 26. Owner/Operator of this facility shall comply with the Organic Solvent Degreasing Operations requirements of Rule 1104 when engaged in wipe cleaning, cold solvent cleaning, and/or vapor cleaning (degreasing) operations for metal/non-metal parts/products.

These requirements are listed as follows:

- (a) All degreasers shall be equipped with a cover, which reduces solvent evaporation and minimizes disturbing the vapor zone.
- (b) A permanent, conspicuous label summarizing the applicable operating requirements contained in Rule 1104. In lieu of a label, operating instructions may be posted near the degreaser where the operators can access the proper operating requirements of this rule.
- (c) Cold Solvent Degreasers Freeboard Requirements:
 - (i) Cold solvent degreasers using only low volatility solvents, which are not agitated, shall operate with a freeboard height of not less than 6 inches.
 - (ii) Cold solvent degreasers using only low volatility solvents may operate with a freeboard ratio equal to or greater than 0.50 when the cold solvent degreaser has a cover, which remains closed during the cleaning operation.
 - (iii) Any cold solvent degreasers using solvent which is agitated, or heated above 50°C (120°F) shall operate with a freeboard ratio equal to or greater than 0.75.
 - (iv) A water cover may be used as an acceptable control method to meet the freeboard requirements, when the solvent is insoluble in water and has a specific gravity greater than one.
- (d) <u>Cold Solvent Degreasers Cover Requirements:</u>
 - (i) Cold solvent degreasers using high volatility solvent shall have a cover that is a sliding, rolling or guillotine (bi-parting) type, which is designed to easily open and close without disturbing the vapor zone.
- (e) <u>Cold Solvent Degreasers Solvent Level Identification:</u>
 - (i) A permanent, conspicuous mark locating the maximum allowable solvent level conforming to the applicable freeboard requirements.
- (f) All Degreasers shall comply with the following operating requirements:
 - (i) Any solvent cleaning equipment and any emission control device shall be operated and maintained in strict accord with the recommendations of the manufacturer.
 - (ii) Degreasers shall not be operating with any detectable solvent leaks.
 - (iii) All solvent, including waste solvent and waste solvent residues, shall be stored in closed containers at all times. All containers for any solvent(s) shall have a label indicating the name of the solvent/material they contain.
 - (iv) Waste solvent and any residues shall be disposed of by one of the following methods: a commercial waste solvent reclamation service licensed by the State of California; **or** a federally or state licensed facility to treat, store or dispose of such waste; **or** the originating facility may recycle the waste solvent and materials in conformance with requirements of Section 25143.2 of the California Health and Safety Code.

- (v) Degreasers shall be covered to prevent fugitive leaks of vapors, except when processing work or to perform maintenance.
- (vi) Solvent carry-out shall be minimized by the following methods:
 - (a) Rack workload arranged to promote complete drainage
 - (b) Limit the vertical speed of the power hoist to 3.3 meters per minute (11 ft/min) or less when such a hoist is used.
 - (c) Retain the workload inside of the vapor zone until condensation ceases.
 - (d) Tip out any pools of solvent remaining on the cleaned parts before removing them from the degreaser if the degreasers are operated manually.
 - (e) Do not remove parts from the degreaser until the parts are visually dry and not dripping/leaking solvent. (This does not apply to an emulsion cleaner workload that is rinsed with water within the degreaser immediately after cleaning.)
- (vii) The cleaning of porous or absorbent materials such as cloth, leather, wood or rope is prohibited.
- (viii) Except for sealed chamber degreasers, all solvent agitation shall be by either pump recirculation, a mixer, or ultrasonics.
- (ix) The solvent spray system shall be used in a manner such that liquid solvent does not splash outside of the container. The solvent spray shall be a continuous stream, not atomized or shower type, <u>unless</u>, the spray is conducted in a totally enclosed space, separated from the environment.
- (x) For those degreasers equipped with a water separator, no solvent shall be visually detectable in the water in the separator.
- (xi) Wipe cleaning materials containing solvent shall be kept in closed containers at all times, except during use.
- (xii) A degreaser shall be located so as to minimize drafts being directed across the cleaning equipment, the exposed solvent surface, or the top surface of the vapor blanket.
- (xiii) A method for draining cleaned material, such as a drying rack suspended above the solvent and within the freeboard area, shall be used so that the drained solvent is returned to the degreaser or container.
- (g) <u>Rule 442 Applicability:</u> Any solvent using operation or facility which is <u>not</u> subject to the source-specific Rule 1104 shall comply with the provisions of Rule 442. Any solvent using operation or facility which is exempt from all or a portion of the volatile organic compound (VOC) limits, equipment limits or the operational limits of Rule 1104 shall be subject to the applicable provisions of Rule 442.
- (h) <u>Solvent Usage Records.</u> Owner/Operator subject to Rule 1104 or claiming any exemption under Rule 1104, Section (E), shall comply with the following

requirements:

- (1) Maintain and have available during an inspection, a current list of solvents in use at the facility which provides all of the data necessary to evaluate compliance, including the following information separately for each degreaser, as applicable:
 - (i) product name(s) used in the degreaser, and
 - (ii) the mix ratio of solvent compounds mixtures of solvents are used, and
 - (iii) VOC content of solvent or mixture of compounds as used, and
 - (iv) the total volume of the solvent(s) used for the facility, on a <u>monthly</u> basis, and
 - (v) the name and total volume applied of wipe cleaning solvent(s) used, on a monthly basis.
- (2) Additionally, for any degreaser utilizing an add-on emission control device/system as a means of complying with provisions of Rule 1104 shall, on a monthly basis, maintain records of key system operating and maintenance data. Such data are recorded for the purpose of demonstrating continuous compliance during periods of emission producing activities. The data shall be recorded in a manner as prescribed by the District.
- (3) Documentation shall be maintained on site of the disposal or on-site recycling of any waste solvent or residues.
- (4) Records shall be retained (at facility) and available for inspection by District, state or federal personnel for the previous 5-year period as required by this Title V / Federal Operating Permit (Reference Rule 1203(D)(1)(d)(ii)).

[Rule 1104 - *Organic Solvent Degreasing Operations*; Version in SIP = Current, 40 CFR 52.220(c)(207)(i)(D)(2) - 04/30/96 61 FR 18962, effective 11/30/94]

27. Owner/Operator's use of *Architectural Coatings* at this facility shall comply with the applicable requirements of Rule 1113, including the VOC limits specified in Rule 1113, part C, Table of Standards, as listed below:

Table of Standards

<u>COATING:</u>	VOC (grams/liter
	[g/L])
Below Ground Wood Preservatives	600
Bond Breakers	350
Concrete Curing Compounds	350
Dry-Fog Coatings	400
Fire Retardant Coatings	
Clear	650
Pigmented	350

Flat Coatings	100		
Primers, Sealers and Undercoaters	200		
Graphic Arts (Sign) Coatings	500		
Industrial Maintenance Coatings	250		
High Temperature Coatings	420		
Anti-Grafitti coatings	600		
Clear Brushing Lacquers	680		
Lacquers (including lacque sanding sealers)	550		
Magnesite Cement Coatings	450		
Mastic Texture Coatings	300		
Metallic-Pigmented Coatings	250		
Multi-Color Coatings	580		
Stains	250		
Wood Preservatives	350		
Pretreatment (Wash) Primer	420		
Quick Dry Enamels	250		
Quick Dry Primers, Sealers and Undercoaters	200		
Roof Coatings	250		
Sanding Sealers	350		
Shellac			
Clear	730		
Opaque	550		
Swimming Pool Coatings	340		
Swimming Pool Repair and Maintenance Coatings	340		
Traffic Marking Coatings	150		
Varnish	350		
Waterproof Sealers	250		
[Rule 1113 - Architectural Coatings; SIP: Submitted 04/01/2003; 40 CFI	3		
52.220(c)(315)(i)(C)(1); Approved 01/02/04; Current Rule as Amended 02/24/03]			

28. Owner/Operator's use of *Wood Products Coatings* at this facility shall comply with the applicable requirements of Rule 1114, including the VOC limits specified in Rule 1114, part C, Table of Standards, as listed below:

(1) <u>VOC Content of Coatings & Adhesives</u>

(a) Any Owners and/or Operators of Wood Products Coating Application Operations shall not apply any Coating or Adhesive to a Wood Product which has a VOC Content, including any VOC-containing material added to the original Coating supplied by the manufacturer, which exceeds the applicable limit specified below, unless emissions to the atmosphere are controlled by air pollution abatement equipment with an Overall Control Efficiency of at least 85 percent. Any Coating subject to this rule that meets either of the two VOC Content limit formats (grams per liter or pounds per gallon [lb/gal]) is in compliance with this subsection.

(i) LIMITS
Grams of VOC Per Liter of Coating,
Less Water and Less Exempt Compounds (VOC Content)

		On and After 7/1/97		On and After 7/1/2005
Coating	Current Limit g/L (lb/gal)	Column I or g/L (lb/gal)	Column II g/L (lb/gal)	g/L (lb/gal)
Clear Sealers	680 (5.7)	550 (4.6)	680 (5.7)	275 (2.3)
Clear Topcoat	680 (5.7)	550 (4.6)	275 (2.3)	275 (2.3)
Pigmented Primers, Sealers and Undercoats	600 (5.0)	550 (4.6)	600 (5.0)	275 (2.3)
Pigmented Topcoats	600 (5.0)	550 (4.6)	275 (2.3)	275 (2.3)

Effective July 1, 1997, a person or facility shall use Coatings on Wood Products that comply with either all VOC Content limits in Column I or all VOC Content limits in Column II. A person or facility that applies a Pigmented Primer, Sealer or Undercoat, but not a Clear Topcoat or Pigmented Topcoat, to a Wood Product shall be subject to column I for that product.

(ii) Notwithstanding the requirements of subsection (C)(1)(a)(i), a person or facility that applies a topcoat and a primer, sealer or undercoat to a Shutter may, until July 1, 2005, choose to comply with the VOC Content limits specified below for that Shutter:

(b) LIMITS
Grams of VOC Per Liter of Coating,
Less Water and Less Exempt Compounds (VOC Content)

Coating	g/L (lb/gal)		
Clear Sealers	275 (2.3)		

Coating	g/L (lb/gal)
Clear Topcoat	680 (5.7)
Pigmented Primers, Sealers & Undercoats	275 (2.3)
Pigmented Topcoats	600 (5.0)

(c) LIMITS
Grams of VOC Per Liter of Coating,
Less Water and Less Exempt Compounds (VOC Content)

Less water and Less Exempt Compounds (VOC Content)				
		On and After 7/1/97	On and After 7/1/2005	
Coating	Current Limit g/L (lb/gal)	g/L (lb/gal)	g/L (lb/gal)	
Fillers	500 (4.2)	500 (4.2)	275 (2.3)	
High-Solid Stains	700 (5.8)	550 (4.6)	350 (2.9)	
Inks	500 (4.2)	500 (4.2)	500 (4.2)	
Mold-Seal Coatings	750 (6.3)	750 (6.3)	750 (6.3)	
Multi-Colored Coatings	685 (5.7)	685 (5.7)	275 (2.3)	
Low-Solids Stains, Toners and Washcoats	800 (6.7)	480 (4.0)	120 (1.0)	
Adhesives	250 (2.1)	250 (2.1)	250 (2.1)	

[Rule 1114 - *Wood Products Coating Operations*; Version in SIP = Current, Approved: 08/18/98, 63 FR 44132, 40 CFR 52.220(c)(244)(i)(C); Approved 61 FR 18962, 04/30/96]

29. Owner/Operator's use of *Metal Parts and Products Coatings* at this facility shall comply with the applicable requirements of Rule 1115, including the VOC limits specified in Rule 1115, as listed below:

Owner/Operator shall not apply to metal parts and products any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below <u>unless</u> emissions to the

atmosphere are controlled to an equivalent level by air pollution abatement equipment with a capture and control system Combined Efficiency of at least 85 percent:

<u>LIMITS</u>
(Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds)

Coating		Air Dried			Baked	
		$\overline{g/l}$		g/L gal)	(lb/gal)	
General		42	0 (3.5	5) 360	(3.0)	
Military Specific	cation	42	0 (3.5	5) 360	(3.0)	
Etching Filler		42	0 (3.5	5) 420	(3.5)	
Solar-Absorbent		42	0 (3.5	5) 360	(3.0)	
Heat-Resistant		42	0 (3.5	5) 360	(3.0)	
High-Gloss		42	0 (3.5	5) 360	(3.0)	
Extreme High-G	loss	42	0 (3.5	5) 360	(3.0)	
Metallic		42	0 (3.5	5) 420	(3.5)	
Extreme Perform	nance	42	0 (3.5	5) 360	(3.0)	
Prefabricated Ar	chitectural					
Compone	ent	42	0 (3.5	5) 275	(2.3)	
Touch U	p	42	0 (3.5	5) 360	(3.0)	
Repair		42	0 (3.5	5) 360	(3.0)	
Silicone-	Release	42	0 (3.5	5) 420	(3.5)	
High Performand	ce					
Architect	tural	42	0 (3.5	5) 420	(3.5)	
Camoufla	age	42	0 (3.5	5) 420	(3.5)	
Vacuum-	-Metalizing	42	0 (3.5	5) 420	(3.5)	
Mold-Sea	al	42	0 (3.5	5) 420	(3.5)	
High-Ter	mperature	42	0 (3.5	5) 420	(3.5)	
Electric-Insulatir	ng Varnish	42	0 (3.5	5) 420	(3.5)	
Pan-Back	king	42	0 (3.5	5) 420	(3.5)	
Pretreatment Wa	sh Primer	42	0 (3.5	5) 420	(3.5)	
Clear Coating		52	0 (4.3	3) 520	(4.3)	

[Rule 1115 - Metal Parts and Products Coating Operations; Version in SIP = Current, 40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002, effective 2/23/98]

- 30. Owner/Operator shall comply with all requirements of the District's Title V Program, MDAQMD Rules 1200 through 1210 (Regulation XII *Federal Operating Permits*). [Applicable via Title V Program interim approval 02/05/96 61 FR 4217]
- 31. Owner/Operator shall comply with all requirements of 40 CFR Part 68; Risk Management Program.

B. <u>FACILITY-WIDE MONITORING, RECORDKEEPING, AND REPORTING</u> REQUIREMENTS:

- 1. Any data and records generated and/or kept pursuant to the requirements in this federal operating permit (Title V Permit) shall be kept current and on site for a minimum of five (5) years from the date generated. Any records, data, or logs shall be supplied to District, state, or federal personnel upon request.

 [40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)]
- 2. Any Compliance/Performance testing required by this Federal Operating Permit shall follow the administrative procedures contained in the District's <u>Compliance Test</u> <u>Procedural Manual</u>. Any required annual Compliance and/or Performance Testing shall be accomplished by obtaining advance written approval from the District pursuant to the District's <u>Compliance Test Procedural Manual</u>. All emission determinations shall be made as stipulated in the <u>Written Test Protocol</u> accepted by the District. When proposed testing involves the same procedures followed in prior District approved testing, then the previously approved <u>Written Test Protocol</u> may be used with District concurrence. [Rule 204 <u>Permit Conditions</u>; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
- 3. Owner/Operator of permit units subject to Comprehensive Emissions Inventory Report / Annual Emissions Determinations for District, state, and federal required Emission Inventories shall monitor and record the following for each unit:
 - (a) The cumulative annual usage of each fuel type. The cumulative annual usage of each fuel type shall be monitored from utility service meters, purchase or tank fill records.
 - (b) Fuel suppliers' fuel analysis certification/guarantee including fuel sulfur content shall be kept on site and available for inspection by District, state or federal personnel upon request. The sulfur content of diesel fuel shall be determined by use of ASTM method D2622-82, or (ASTM method D 2880-71, or equivalent). Vendor data meeting this requirement are sufficient.

[$40 \ CFR \ 70.6(a)(3)(B) - Periodic Monitoring Requirements$]

[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77] [Federal Clean Air Act: §110(a)(2)(F, K & J); §112; §172(c)(3); §182(a)(3)(A & B); §187(a)(5); § 301(a)] and in California Clean Air Act, Health and Safety Code §§39607 and §§44300 et seq.]

- 4 (a) Owner/Operator shall submit Compliance Certifications as prescribed by Rule 1203(F)(1) and Rule 1208, in a format approved by MDAQMD. Compliance Certifications by a Responsible Official shall certify the truth, accuracy and completeness of the document submitted and contain a statement to the effect that the certification is based upon information and belief, formed after a reasonable inquiry; the statements and information in the document are true, accurate, and complete.

 [40 CFR 70.6(c)(5)(i); Rule 1208; Rule 1203(D)(1)(vii-x)]
- (b) Owner/Operator shall include in any Compliance Certification the methods used for monitoring such compliance.
 [40 CFR 70.6(c)(5)(ii); Rule 1203(D)(1)(g)(viii)]
- (c) Owner/Operator shall comply with any additional certification requirements as specified in 42 United States Code (U.S.C.) §7414(a)(3), Recordkeeping, Inspections, Monitoring and Entry (Federal Clean Air Act §114(a)(3)) and 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §503(b)), or in regulations promulgated thereunder.

 [Rule 1203 (D)(1)(g)(x)]
- (d) On an <u>annual</u> basis, of any given year, Owner/Operator shall submit a <u>Compliance Certification Report</u>, within 30 days of the anniversary of the date of the issuance or renewal of the Federal Operating Permit, to the APCO/District pursuant to District Rule 1203. Each report shall be certified to be true, accurate, and complete by "The Responsible Official" and a copy of this annual report shall also be contemporaneously submitted to the EPA Region IX Administrator. Compliance Certification Form/Format shall be obtained from MDAQMD Compliance Section.

[40 CFR 72.90.a and Rule 1203 (D)(1)(g)(v - x)]

- 5. Owner/Operator shall submit, on a semiannual basis, a Monitoring Report to the APCO/District. Each Monitoring Report shall be submitted no later than 30 days after the midpoint (six months after the Title V Permit month & day issue date) of the Title V Permit anniversary date of any given year. This Monitoring Report shall be certified to be true, accurate, and complete by "The Responsible Official" and shall include the following information and/or data:
 - (a) Summary of deviations from any federally-enforceable requirement in this permit.
 - (b) Summary of all emissions monitoring and analysis methods required by any

- Applicable Requirement / federally enforceable requirement.
- (c) Summary of all periodic monitoring, testing or record keeping (including test methods sufficient to yield reliable data) to determine compliance with any Applicable Requirement / federally enforceable requirement that does not directly require such monitoring.

An alternate Monitoring Report format may be used upon prior approval by MDAQMD. [Rule 1203(D)(1)(e)(i)]

6. Owner/Operator shall promptly report all deviations from Federal Operating Permit requirements including, but not limited to, any emissions in excess of permit conditions, deviations attributable to breakdown conditions, and any other deviations from permit conditions. Such reports shall include the probable cause of the deviation and any corrective action or preventative measures taken as a result of the deviation. [Rule 1203(D)(1)(e)(ii) and Rule 430(C)]

Prompt reporting shall be determined as follows:

- (a) For deviations involving emissions of air contaminants in excess of permit conditions including but not limited to those caused by a breakdown, prompt reporting shall be within one hour of the occurrence of the excess emission or within one hour of the time a person knew or reasonably should have known of the excess emission. Documentation and other relevant evidence regarding the excess emission shall be submitted to the District within sixty (60) days of the date the excess emission was reported to the District. [SIP Pending: Rule 430 Breakdown Provisions as amended 12/21/94 and submitted 2/24/95]
- (b) For other deviations from permit conditions not involving excess emissions of air contaminants shall be submitted to the District with any required monitoring reports at least every six (6) months. [Rule 1203(D)(1)(e)(i)]
- 7. If any facility unit(s) should be determined not to be in compliance with any federally-enforceable requirement during the 5-year permit term, then Owner/Operator shall obtain a *Schedule of Compliance* approved by the District Hearing Board pursuant to the requirements of MDAQMD Regulation 5 (Rules 501 518). In addition, Owner/Operator shall submit a *Progress Report* on the implementation of the *Schedule of Compliance*. The *Schedule of Compliance* shall contain the information outlined in (b), below. The *Progress Report* shall contain the information outlined in (c), below. The *Schedule of Compliance* shall become a part of this Federal Operating Permit by administrative incorporation. The *Progress Report* and *Schedule of Compliance* shall comply with Rule 1201(I)(3)(iii) and shall include:
 - (a) A narrative description of how the facility will achieve compliance with such requirements; and
 - (b) A Schedule of Compliance which contains a list of remedial measures to be taken

for the facility to come into compliance with such requirements, an enforceable sequence of actions, with milestones, leading to compliance with such requirements and provisions for the submission of *Progress Reports* at least every six (6) months. The Schedule of Compliance shall include any judicial order, administrative order, and/or increments of progress or any other schedule as issued by any appropriate judicial or administrative body or by the District Hearing Board pursuant to the provisions of Health & Safety Code §42350 et seq.;

(c) Progress Reports submitted under the provisions of a Schedule of Compliance shall include: Dates for achieving the activities, milestone, or compliance required in the schedule of compliance; and dates when such activities, milestones or compliance were achieved; and an explanation of why any dates in the schedule of compliance were not or will not be met; and any preventive or corrective measures adopted due to the failure to meet dates in the schedule of compliance. [Rule 1201 (I)(3)(iii); Rule 1203 (D)(1)(e)(ii); Rule 1203 (D)(1)(g)(v)]

C. FACILITY-WIDE COMPLIANCE CONDITIONS:

- 1. Owner/Operator shall allow an authorized representative of the MDAQMD to enter upon the permit holder's premises at reasonable times, with or without notice. [40 CFR 70.6(c)(2)(i); Rule 1203(D)(1)(g)(i)]
- 2. Owner/Operator shall allow an authorized representative of the MDAQMD to have access to and copy any records that must be kept under condition(s) of this Federal Operating Permit. [40 CFR 70.6(c)(2)(ii); Rule 1203(D)(1)(g)(ii)]

3. Owner/Operator shall allow an authorized representative of the MDAQMD to inspect any equipment, practice or operation contained in or required under this Federal Operating Permit.

[40 CFR 70.6(c)(2)(iii); Rule 1203(D)(1)(g)(iii)]

- 4. Owner/Operator shall allow an authorized representative of the MDAQMD to sample and/or otherwise monitor substances or parameters for the purpose of assuring compliance with this Federal Operating Permit or with any Applicable Requirement. [40 CFR 70.6(c)(2)(iv); Rule 1203(D)(1)(g)(iv)]
- 5. Owner/Operator shall remain in compliance with all Applicable Requirements / federally enforceable requirements by complying with all compliance, monitoring, record-keeping,

reporting, testing, and other operational conditions contained in this Federal Operating Permit. Any noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; the termination, revocation and re-issuance, or modification of this Federal Operating Permit; and/or grounds for denial of a renewal application.

[1203 (D)(1)(f)(ii)]

- 6. Owner/Operator shall comply in a timely manner with all applicable requirements / federally enforceable requirements that become effective during the term of this permit. [Rule 1201 (I)(2); Rule 1203(D)(1)(g)(v)]
- 7. Owner/Operator shall insure that all applicable subject processes comply with the provisions of 40 CFR 61, *National Emission Standards for Hazardous Air Pollutants*, subpart A, *General Provisions*, and subpart M, *Asbestos*.

 [40 CFR 61, subparts A and M]
- 8. Owner/Operator shall notify APCO/District at least 10 working days before any applicable asbestos stripping or removal work is to be performed as required by section 61.145.b of 40 CFR 61 subpart M, *National Emission Standard for Asbestos*. [40 CFR 61.145.b]
- 9. Owner/Operator shall notify the APCO/District, on an **annual** basis, postmarked by December 17 of the calendar year, of the predicted asbestos renovations for the following year as required by section 61.145.b of 40 CFR 61, subpart M [see cite for threshold triggering and applicability].

 [40 CFR 61.145.b]

PART III

EQUIPMENT SPECIFIC APPLICABLE REQUIREMENTS; EMISSIONS LIMITATIONS; MONITORING, RECORDKEEPING, REPORTING AND TESTING REQUIREMENTS; COMPLIANCE CONDITIONS; COMPLIANCE PLANS

1. PART III, ITEM A:

MDAQMD PERMIT NUMBER B005266: COMBUSTION TURBINE GENERATOR 3F-1, consisting of: Natural gas fueled Westinghouse 501F combustion turbine generator power block with a connected heat recovery steam generator and steam condensing turbine, maximum heat input of 1711 MMBtu/hr and producing a nominal 250 MW(e).

MDAQMD PERMIT NUMBER B005267: COMBUSTION TURBINE GENERATOR 3F-2, consisting of: Natural gas fueled Westinghouse 501F combustion turbine generator power block with a connected heat recovery steam generator and steam condensing turbine, maximum heat input of 1711 MMBtu/hr and producing a nominal 250 MW(e).

MDAQMD PERMIT NUMBER B005268: COMBUSTION TURBINE GENERATOR 3F-3, consisting of: Natural gas fueled Westinghouse 501F combustion turbine generator power block with a connected heat recovery steam generator and steam condensing turbine, maximum heat input of 1711 MMBtu/hr and producing a nominal 250 MW(e).

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. Operation of each combustion turbine generator shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. Each combustion turbine generator shall be exclusively fueled with pipeline quality natural gas with a sulfur content not exceeding 0.2 grains per 100 dscf on a rolling twelve

month average basis, and shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

- 3. Each combustion turbine generator is subject to the federal NSPS codified at 40 CFR Part 60, Subparts A (General Provisions) and GG (Standards of Performance for Stationary Gas Turbines). This equipment is also subject to the Prevention of Significant Deterioration (40 CFR 51.166) and Federal Acid Rain (Title IV) programs. Compliance with all applicable provisions of these regulations is required.
- 4. Emissions from each combustion turbine generator (including its associated duct burner) shall not exceed the following emission limits at any firing rate, except for CO, NOx, VOC and ammonia slip during periods of startup, shutdown and malfunction:
 - a. Hourly rates, computed every 15 minutes, verified by CEMS and compliance tests:
 - i. NOx as NO2 18.00 lb/hr (based on 2.5 ppmvd corrected to 15% oxygen and averaged over one hour)
 - ii. CO 17.53 lb/hr (based on 4.0 ppmvd corrected to 15% oxygen and averaged over 24 hours)
 - iii. Ammonia Slip 10 ppmvd (corrected to 15% oxygen and averaged over three hours)
 - b. Hourly rates, verified by compliance tests or other compliance methods in the case of SOx:
 - i. VOC as CH4 2.51 lb/hr (based on 1 ppmvd corrected to 15% oxygen)
 - ii. SOx as SO2 1.11 lb/hr (based on LHV), 1.2 lb/hr (based on HHV)
 - iii. PM10 18.14 lb/hr

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

- 5. Emissions of CO and NOx from the power block (defined as B005266, B005267 and B005268 combined) may exceed the limits contained in Condition 4 during startup and shutdown periods as follows:
 - a. Startup shall be defined as the period beginning with ignition and lasting until the power block has reached operating permit limits. Cold startup means a startup when the power block has not been in operation during the preceding 72 hours. Hot startup means a startup when the power block has been in operation during the preceding 8 hours. Warm startup means a startup that is not a hot or cold startup. Shutdown shall be defined as the period beginning with the lowering of the power block from normal operating load and lasting until fuel flow is completely off and combustion has ceased.
 - b. During a cold startup emissions shall not exceed the following, verified by CEMS:
 - i. NOx 549 lb
 - ii. CO 10,623 lb

- c. During a warm startup emissions shall not exceed the following, verified by CEMS:
 - i. NOx 504 lb
 - ii. CO 10,788 lb
- d. During a hot startup emissions shall not exceed the following, verified by CEMS:
 - i. NOx 414 lb
 - ii. CO 11,187 lb
- e. During a shutdown emissions shall not exceed the following, verified by CEMS:
 - i. NOx 291 lb
 - ii. CO 717 lb

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

- 6. Emissions from each combustion turbine generator, including the duct burner, may not exceed the following emission limits, based on a calendar day summary:
 - a. NOx 848 lb/day, verified by CEMS
 - b. CO 8072 lb/day, verified by CEMS
 - c. VOC as CH4 1448 lb/day, verified by compliance tests and hours of operation in mode
 - d. SOx as SO2 26.7 lb/day (based on LHV), 28.8 lb/day (based on HHV), verified by fuel sulfur content and fuel use data
 - e. PM10 435 lb/day, verified by compliance tests and hours of operation

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

- 7. Emissions from this facility, including the cooling towers, may not exceed the following emission limits, based on a rolling 12-month summary:
 - a. NOx 205 tons/year, verified by CEMS
 - b. CO 750 tons/year, verified by CEMS
 - c. VOC as CH4 129 tons/year, verified by compliance tests and hours of operation in mode
 - d. SOx as SO2 14 tons/year (based on LHV), 15.8 tons/year (based on HHV), verified by fuel sulfur content and fuel use data
 - e. PM10 233.2 tons/year, verified by compliance tests and hours of operation

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

8. Each combustion turbine generator shall exhaust through a stack at a minimum height of 130 feet.

- 9. The owner/operator (o/o) shall not operate each combustion turbine generator without the selective catalytic NOx reduction system and a VOC and CO oxidation catalyst system with valid District permits installed and fully functional.
- 10. Emissions of NOx, CO, oxygen and ammonia slip shall be monitored using a Continuous Emissions Monitoring System (CEMS). Turbine fuel consumption shall be monitored using a continuous monitoring system. The operator shall install, calibrate, maintain and operate these monitoring systems according to a District-approved monitoring plan and Rule 218, and they shall be installed prior to initial equipment startup. Six (6) months prior to installation the operator shall submit a monitoring plan for District review and approval.

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

- 11. The o/o shall conduct all required compliance/certification tests in accordance with a District-approved test plan. Thirty (30) days prior to the compliance/certification tests the operator shall provide a written test plan for District review and approval. Written notice of the compliance/certification test shall be provided to the District ten (10) days prior to the tests so that an observer may be present. A written report with the results of such compliance/certification tests shall be submitted to the District within forty-five (45) days after testing.
- 12. The o/o shall perform the following compliance tests in accordance with the MDAQMD Compliance Test Procedural Manual at least once every five years beginning in 2006 (at least once every three years beginning in 2006 for VOC). The test report shall be submitted to the District no later and six weeks prior to the expiration date of this permit. The following compliance tests are required:
 - a. NOx as NO2 in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Method 7E, 19 or 20).
 - b. VOC as CH4 in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Methods 25A and 18)
 - c. SOx as SO2 in ppmvd at 15% oxygen and lb/hr.
 - d. CO in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Method 10)
 - e. Flue gas flow rate in scfmd.
 - f. Ammonia slip in ppmvd at 15% oxygen.

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

13. The o/o shall, at least as often as once every five years (commencing with the initial compliance test), perform the following supplemental source tests in accordance with the

MDAQMD Compliance Test Procedural Manual:

- a. Characterization of cold startup VOC emissions;
- b. Characterization of warm startup VOC emissions;
- c. Characterization of hot startup VOC emissions; and,
- d. Characterization of shutdown VOC emissions.
- 14. Continuous monitoring systems shall meet the following acceptability testing requirements from 40 CFR 60 Appendix B (or applicable requirements and procedures from 40 CFR 75):
 - a. For NOx, Performance Specification 2.
 - b. For oxygen, Performance Specification 3.
 - c. For CO, Performance Specification 4 or 4a.
 - d. For ammonia, a District-approved procedure that is to be submitted by the o/o.
- 15. The o/o shall submit to the APCO and USEPA Region IX the following information for the preceding calendar quarter by January 30, April 30, July 30 and October 30 of each year this permit is in effect. Each January 30 submittal shall include a summary of the reported information for the previous year. This information shall be maintained on site for a minimum of five (5) years and shall be provided to District personnel on request:
 - a. Operating parameters of emission control equipment, including but not limited to ammonia injection rate, NOx emission rate and ammonia slip.
 - b. Total plant operation time (hours), hours in cold startup, hours in warm startup, hours in hot startup, and hours in shutdown.
 - c. Average plant operation schedule (hours per day, days per week, weeks per year).
 - d. All continuous emissions data reduced and reported in accordance with the District-approved CEMS protocol.
 - e. Maximum hourly, maximum daily, total quarterly, and total calendar year emissions of NOx, CO, PM10, VOC and SOx (including calculation protocol).
 - f. Fuel sulfur content (monthly laboratory analyses, monthly natural gas sulfur content reports from the natural gas supplier(s), or the results of a custom fuel monitoring schedule approved by USEPA for compliance with the fuel monitoring provisions of 40 CFR 60 Subpart GG).
 - g. A log of all excess emissions, including the information regarding malfunctions/breakdowns required by Rule 430.
 - h. Any permanent changes made in the plant process or production, which would affect air pollutant emissions, and indicate when changes were made.
 - i. Any maintenance to any pollutant control system (recorded on an as-performed basis).

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

16. The o/o shall provide sampling ports and platforms necessary to perform source tests required to verify compliance with District rules, regulations and permit conditions. The location of these ports and platforms shall be subject to District approval.

2. PART III, ITEM B:

MDAQMD PERMIT NUMBER B005269: DUCT BURNER 3F-1: COEN Company, Inc. natural gas burner located within the heat recovery steam generator covered by B005266, maximum heat input of 150 MMBtu/hr.

MDAQMD PERMIT NUMBER B005270: DUCT BURNER 3F-2: COEN Company, Inc. natural gas burner located within the heat recovery steam generator covered by B005267, maximum heat input of 150 MMBtu/hr.

MDAQMD PERMIT NUMBER B005271: DUCT BURNER 3F-3: COEN Company, Inc. natural gas burner located within the heat recovery steam generator covered by B005268, maximum heat input of 150 MMBtu/hr.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. This equipment shall be exclusively fueled with natural gas and shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.
- 3. The duct burner shall not be operated unless operated with the combustion turbine generator with valid District permits as follows. B005269 used with B005266; B005270 used with B005267 and B005271 used with B005268. In addition, selective catalytic

NOx reduction systems with valid District permits must be in operation as listed as follows. C005272 serves B005266; C005273 serves B005267; and C005274 serves B005268.

Fuel use by this equipment shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District personnel on request.
 [40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

3. PART III, ITEM C:

<u>MDAQMD PERMIT NUMBER C005272</u>: SCR UNIT 3F-1: a Cormetech selective catalytic reduction system with a catalyst located within the combustion turbine generator covered by B005266 and an ammonia injection system.

<u>MDAQMD PERMIT NUMBER C005273</u>: SCR UNIT 3F-2: a Cormetech selective catalytic reduction system with a catalyst located within the combustion turbine generator covered by B005267 and an ammonia injection system.

<u>MDAQMD PERMIT NUMBER C005274</u>: SCR UNIT 3F-3: a Cormetech selective catalytic reduction system with a catalyst located within the combustion turbine generator covered by B005268 and an ammonia injection system.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

- 3. This equipment shall be operated concurrently with the combustion turbine generators covered in valid permit B005266, B005267, and B005268, as listed above and Part III, item A.
- 4. Ammonia shall be injected whenever the selective catalytic reduction system has reached or exceeded 550 degrees Fahrenheit except for periods of equipment malfunction. Except during periods of startup, shutdown and malfunction, ammonia slip shall not exceed 10 ppmv dry at 15% oxygen, averaged over three hours.
- 5. Ammonia injection by this equipment in pounds per hour shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District personnel on request.

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

4. PART III, ITEM D:

MDAQMD PERMIT NUMBER C005275: OXIDATION CATALYST 3F-1: High temperature oxidation catalyst manufactured by EmeraChem ADCAT CO Oxidation Catalytic Systems located within the combustion turbine generator covered by B005266 designed to minimize emissions of VOC and CO.

MDAQMD PERMIT NUMBER C005276: OXIDATION CATALYST 3F-2: High temperature oxidation catalyst manufactured by EmeraChem ADCAT CO Oxidation Catalytic Systems located within the combustion turbine generator covered by B005267 designed to minimize emissions of VOC and CO.

MDAQMD PERMIT NUMBER C005277: OXIDATION CATALYST 3F-3: High temperature oxidation catalyst manufactured by EmeraChem ADCAT CO Oxidation Catalytic Systems located within the combustion turbine generator covered by B005268 designed to minimize emissions of VOC and CO.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION =

07/25/77:

- 1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.
- 3. This equipment shall be operated concurrently with the combustion turbine generator with valid District permit (C005275 serves B005266; C005276 serves B005267 and C005277 serves B005268; as described above).

5. PART III, ITEM E:

A. MDAQMD PERMIT NUMBER E008159: DIESEL IC ENGINE, EMERGENCY FIRE WATER PUMP, consisting of: One Cummins, Diesel fired internal combustion engine, Model No. 6BTA 5.9 FI and Serial No. 46100208, After Cooled, Turbo Charged, producing 182 bhp with 6 cylinders at 1785 rpm while consuming a maximum of 9 gal/hr. This equipment powers a Fire Pump.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.
- 2. Engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted

outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.

- 3. This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15) on a weight per weight basis per CARB Diesel or equivalent requirements.
- 4. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time.
- 5. This unit shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted. In addition, this unit shall be operated no more than 30 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 30 hour per year limit.
- 6. The hour limit of Condition #5 can be exceeded when the emergency fire pump assembly is driven directly by a stationary diesel fueled CI engine when operated per and in accord with the National Fire Protection Association (NFPA) 25 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 1998 edition. {Title 17 CCR 93115(c)16}
- 7. The o/o shall maintain a operations log for this unit current and on-site, either at the engine location or at a on-site location, for a minimum of five (5) years, and for another year where it can be made available to the District staff within 5 working days from the District's request, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:
 - a. Date of each use and duration of each use (in hours);
 - b. Reason for use (testing & maintenance, emergency, required emission testing);
 - c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,
 - d. Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log).
- 8. This genset is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (Title 17 CCR 93115). In the event of conflict between these conditions and the ATCM, the requirements of the ATCM shall govern.

B. MDAQMD PERMIT NUMBER E008665: DIESEL IC ENGINE, EMERGENCY GENERATOR, consisting of: One Caterpillar, Diesel fired internal combustion engine, Model No. 3516 and Serial No. 1H202373, After Cooled, Turbo Charged, producing 2848 bhp with 6 cylinders at 1800 rpm while consuming a maximum of 136 gal/hr. This equipment powers a Generator.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.
- 2. Engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.
- 3. This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15) on a weight per weight basis per CARB Diesel or equivalent requirements.
- 4. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time.
- 5. This unit shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted. In addition, this unit shall be operated no more than 50 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 50 hour per year limit.
- 6. The owner/operator (o/o) shall maintain a operations log for this unit current and on-site,

either at the engine location or at a on-site location, for a minimum of five (5) years, and for another year where it can be made available to the District staff within 5 working days from the District's request, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:

- a. Date of each use and duration of each use (in hours);
- b. Reason for use (testing & maintenance, emergency, required emission testing);
- c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and.
- d. Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log).
- 7. This genset is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (Title17 CCR 93115). In the event of conflict between these conditions and the ATCM, the requirements of the ATCM shall govern.
- C. MDAQMD Permit Number B009188: DIESEL IC ENGINE, PORTABLE WATER PUMP, consisting of: Year of MFG 2003, One Perkins, Diesel fired internal combustion engine, Model No. 1004-42 and Serial No. AR36677, Direct Injected, producing 85.5 bhp with 4 cylinders at 2400 rpm while consuming a maximum of 4 lbs/hr. This equipment powers a Pump.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.
- 2. This diesel ICE and its associated equipment cannot be operated at the same engine-print (spot) for more than 365 consecutive days. (This system must be moved within this

facility or moved to another facility annually.) [Title 17 CCR 93116.2(bb)]

- 3. This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15) on a weight per weight basis per CARB Diesel or equivalent requirements.
- 4. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time by January 1, 2012. [Title 17 CCR 93116.4(c)(2)(A)].
- 5. Prior to January 1, 2010, this portable diesel-fueled engine (unit) or its replacement engine shall be certified to meet a federal or California standard for newly manufactured nonroad engines pursuant to 40 CFR Part 89 or Title 17 CCR Section 2423 (that is, certified to Tier 1, 2 or 3 nonroad engine standards). Unless this unit is used exclusively for emergency applications or qualifies as a low-use engine (operates 80 hours or less per calendar year) and the owner/operator (o/o) commits to replacing this engine with a Tier 4 engine. (Tier 4 engines are phased in for engines manufactured beginning in 2011). (Title 17 CCR Section 93116.3(b)(1))
- 6. The owner/operator (o/o) shall maintain a operations log for this unit current and on-site, either at the engine location or at a on-site location, for a minimum of five (5) years, and for another year where it can be made available to the District staff within 5 working days from the District's request, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:
 - a. Date of each use and duration of each use (in hours);
 - b. Reason for use (testing & maintenance, emergency, required emission testing);
 - c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,
 - d. Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log).
- 7. The o/o of this unit must submit a Status Report for the entire fleet* by March 1, 2011. This Status Report should include, but not limited to the following, for details see Title 17 CCR 93116.4(e)(1):
 - a. The fleet's weighted average PM emission rate for the 2010 calendar year,
 - b. Inventory of portable engines in the fleet,
 - c. Identify, if applicable, each portable diesel-fueled engine that the owner commits to replacing with a Tier 4 engine,

- d. Listing of portable diesel-fueled engines, if applicable, used exclusively in emergency applications,
- e. Listing of portable diesel-fueled engines, if applicable, satisfying the low-use engine requirements,
- f. Listing of portable alternative-fueled engines, if applicable, added to the fleet prior to January, 1, 2009, pursuant to section 93116.3(d)(2)(B)2, and
- g. Listing of portable diesel-fueled engine(s) equipped with Selective Catalytic Reduction (SCR) system(s),
- * Fleet is defined in Title 17 CCR Section 93116.2(p) as one or more portable units(s).
- 8. The fleet* under control of the o/o is subject to and shall comply with the weighted Diesel Particulate Matter (DPM) emission fleet averages ** expressed as grams per brake horsepower-hour (g/bhp-hr) of Title 17 CCR Section 93116.3(c) & (d) by the following dates:

Compliance Date	Weight DPM (g/bhp-hr)
January 1, 2013	0.30
January 1, 2017	0.18
January 1, 2020	0.04

- * Fleet is defined in Title 17 CCR Section 93116.2(p) as one or more portable units(s).
- * * The method used to calculate the Fleet Average is found in Title 17 CCR 93116.3(d).
- 9. The o/o of this unit must submit a 'Statement of Compliance' signed by the Responsible Official that the fleet standards are being achieved and a summary that identifies each portable engine in the fleet and the associated emission rate (g/bhp-hr) and other required information; see Title 17 CCR 93116.4(e)(2), (3), (4), (5), (6) and (7) for the following compliance statement submittal dates:

Weight DPM Emission Fleet Average Date	Submitted by
January 1, 2013	March 1, 2013
January 1, 2017	March 1, 2017
January 1, 2020	March 1, 2020

10. The o/o of fleets that are exempted from the requirements of section 93116.4 pursuant to section 93116.4 (a), the Responsible Official shall certify that all portable diesel-fueled engines in the fleet satisfy the requirements of section 93116.4(a). See Title 17 CCR 93116.4(f) for details.

- 11. The o/o and/or Responsible Official of a fleet electing to use electrification in determining the fleet average shall submit the report required by Title 17 CCR 93116.4(c)(3) by January 1, 2012.
- 12. This genset is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Portable Compression Ignition Engines (Title17 CCR 93116). In the event of conflict between these conditions and the ATCM, the requirements of the ATCM shall govern.

6. PART III, ITEM F:

A. MDAQMD PERMIT NUMBER B005278: COOLING TOWER: Water circulation, treatment and handling equipment and air circulation equipment. Cooling Tower Manufacturer; GEA Integrated Cooling Technologies, Inc. Serial Number; 544246-12B-WCF.

PERMIT CONDITIONS:

PERMIT CONDITIONS; (UNLESS OTHERWISE STATED ALL CONDITIONS RESULT FROM RULE 204 - PERMIT CONDITIONS; VERSION IN SIP = CARB EX. ORDER G-73, 40 CFR 52.220(C)(39)(II)(B) - 11/09/78 43 FR 52237; CURRENT RULE VERSION = 07/25/77:

- 1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
- 2. This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.
- 3. The drift rate shall not exceed 0.0006 percent with a maximum circulation rate of 218,000 gallons per minute. The maximum hourly PM10 emission rate shall not exceed 1.2 pounds per hour, as calculated per the written District-approved protocol.

 [40 CFR 70.6 (a)(3)(B) Periodic Monitoring Requirements]
- 4. The owner/operator (o/o) shall operate a circulating water monitoring system, which continuously measures the specific conductivity of the circulating water and records the

hourly average electronically. The operator shall maintain an electronic log containing the hourly average specific conductivity readings, the average hourly circulating water flow rate, and the resulting average PM10 emission rate (calculated on a weekly basis). This log shall be maintained on site for a minimum of five (5) years and shall be provided to District personnel on request.

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

- 5. The o/o shall calculate PM10 emissions in accordance with a District-approved monitoring and emissions calculation protocol. The o/o shall provide a written calculation protocol for District review and approval.
- 6. A maintenance procedure shall be established that states how often and what procedures will be used to ensure the integrity of the drift eliminators. This procedure is to be kept on-site and available to District personnel on request.

[40 CFR 70.6 (a)(3)(B) - Periodic Monitoring Requirements]

- B. MDAQMD PERMIT NUMBER T010620: SILOS, BULK STORAGE: Two US Filter Zimpro Products Model T-1 bulk chemical handling station cylindrical silos (soda ash and hydrated lime) each 32 feet 11 1/8" H and 12' diameter that are part of the cooling tower blowdown system. Each silo is equipped with a passive bin vent containing 125 square feet of bag filters that handle 500 cfm of pneumatic loading flow (for an air to cloth ratio of 4:1).
- 1. The owner/operator (o/o) shall maintain this equipment in strict accord with the recommendations of its manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants.
- 2. This equipment shall not be operated unless it is vented through dedicated bin vents when accepting pneumatic fill.
- 3. The o/o shall conduct a minimum program of inspection and maintenance on this equipment. The o/o shall maintain current and on-site for two (2) years a log of the following information, which shall be provided to District personnel upon request:
 - a. Monthly (or less frequently if observed for every pneumatic fill) binvent stack

observation data and result (using USEPA Method 22, and USEPA Method 9 if necessary);

- b. Annual bag and bag suspension system inspection date and results;
- c. Date of bag replacements.
- d. Date and nature of any system repairs.
- 4. The bin vents shall not discharge into the atmosphere an exhaust stream that exhibits greater than twenty percent opacity.
- 5. The bin vent shall discharge no more than 0.04 pounds per hour of PM10 at a maximum concentration of 0.01 grains/dscf at the operating conditions given in the above (BACT). This equipment does not require a regularly scheduled compliance test. However, emission compliance testing may be required at the discretion of the District.
- 6. The o/o shall maintain on-site a minimum inventory of replacement bags that assures compliance with these conditions.

PART IV STANDARD FEDERAL OPERATING PERMIT CONDITIONS

A. STANDARD CONDITIONS:

- 1. If any portion of this Federal Operating Permit is found to be invalid by the final decision of a court of competent jurisdiction the remaining portion(s) of this Federal Operating Permit shall not be affected thereby.

 [40 CFR 70.6(a)(5); Rule 1203(D)(1)(f)(i)]
- 2. Owner/Operator shall comply with all condition(s) contained herein. Noncompliance with any condition(s) contained herein constitutes a violation of the Federal Clean Air Act and of MDAQMD Regulation XII and is grounds for enforcement action; termination, revocation and re-issuance, or modification of this Federal Operating Permit; and/or grounds for denial of a renewal of this Federal Operating Permit.

 [40 CFR 70.6(a)(6)(i); Rule 1203(D)(1)(f)(ii)]
- 3. It shall not be a defense in an enforcement action brought for violation(s) of condition(s) contained in this Federal Operating Permit that it would have been necessary to halt or reduce activity to maintain compliance with those condition(s).

 [40 CFR 70.6(a)(6)(ii); Rule 1203(D)(1)(f)(iii)]
- 4. This Federal Operating Permit may be modified, revoked, reopened or terminated for cause.

 [40 CFR 70.6(a)(6)(iii); Rule 1203(D)(1)(f)(iv)]
- 5. The filing of an application for modification; a request for revocation and re-issuance; a request for termination; notifications of planned changes; or anticipated noncompliance with condition(s) does not stay the operation of any condition contained in this Federal Operating Permit.

 [40 CFR 70.6(a)(6)(iii); Rule 1203(D)(1)(f)(v)]
- 6. The issuance of this Federal Operating Permit does not convey any property rights of any sort nor does it convey any exclusive privilege.

 [40 CFR 70.6(a)(6)(iv); Rule 1203(D)(1)(f)(vi)]
- 7. Owner/Operator shall furnish to the MDAQMD, within a reasonable time as specified by the MDAQMD, any information that the MDAQMD may request in writing. [40 CFR 70.6(a)(6)(v); Rule 1203(D)(1)(f)(vii)]

8. Owner/Operator shall furnish to District, state or federal personnel, upon request, copies of any records required to be kept pursuant to condition(s) of this Federal Operating Permit.

[40 CFR 70.6(a)(6)(v); Rule 1203(D)(1)(f)(viii)]

9. Any records required to be generated and/or kept by any portion of this Federal Operating Permit shall be retained by the facility Owner/Operator for at least five (5) years from the date the records were created.

[40 CFR 70.6(a)(3)(ii)(B); Rule 1203(D)(1)(d)(ii)]

- 10. Owner/Operator shall pay all applicable fees as specified in MDAQMD Regulation III, including those fees related to permits as set forth in Rules 301 and 312. [40 CFR 70.6(a)(7); Rule 1203(D)(1)(f)(ix)]
- Owner/Operator shall not be required to revise this permit for approved economic incentives, marketable permits, emissions trading or other similar programs provided for in this permit.
 [40 CFR 70.6(a)(8); Rule 1203(D)(1)(f)(x)]
- 12. Compliance with condition(s) contained in this Federal Operating Permit shall be deemed compliance with the Applicable Requirement underlying such condition(s). The District clarifies that "only" Applicable Requirements listed & identified elsewhere in this Title V Permit are covered by this Permit Shield and does not extend to any unlisted/unidentified conditions pursuant to the requirements of 40 CFR 70.6(f)(1)(i).

 [40 CFR 70.6(f)(1)(i); Rule 1203(G)(1)]
- 13. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit the emergency powers of USEPA as set forth in 42 U.S.C. §7603. [40 CFR 70.6(f)(3)(i); Rule 1203(G)(3)(a)]
- 14. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to limit liability for violations, which occurred prior to the issuance of this Federal Operating Permit.

 [40 CFR 70.6(f)(3)(ii); Rule 1203(G)(3)(b)]
- 15. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to alter any Applicable Requirement Contained in the Acid Rain Program.

 [40 CFR 70.6(f)(3)(iii); Rule 1203(G)(3)(c)]
- 16. The Permit Shield set forth above, in condition 12 of Part IV, shall not be

construed to limit the ability of USEPA or the MDAQMD to obtain information pursuant to other provisions of law including but not limited to 42 U.S.C. §7414. [40 CFR 70.6(f)(3)(iv); Rule 1203(G)(3)(d)]

- 17. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to apply to emissions trading pursuant to provisions contained in an applicable State Implementation Plan.

 [40 CFR 70.4(b)(12)(ii)(B); Rule 1203(G)(3)(e)]
- 18. The Permit Shield set forth above, in condition 12 of Part IV, shall not be construed to apply to changes made which are not expressly allowed by this Federal Operating Permit. [40 CFR 70.4(b)(14)(iii); Rule 1203(G)(3)(f)]
- 19. The Permit Shield set forth in Part IV, condition 12, shall not be construed to apply to changes made pursuant to the Significant Permit Modification provisions until such changes are included in this Federal Operating Permit.

 [40 CFR 70.5(a)(1)(ii), 70.7(e)(2)(vi); Rule 1203 (G)(3)(g)]
- 20. If Owner/Operator performs maintenance on, or services, repairs, or disposes of appliances, Owner/Operator shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. These requirements are Federally Enforceable through this Title V Permit.

 [40 CFR Part 82, Subpart F]
- 21. If Owner/Operator performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), Owner/Operator shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. These requirements are Federally Enforceable through this Title V Permit. [40 CFR Part 82, Subpart B]
- 22. Notwithstanding the testing requirements contained elsewhere in this Title V Permit, any credible evidence may be used to establish violations, including but not limited to; reference test methods, engineering calculations, indirect estimates of emissions, CEMS data, and parametric monitoring data. Data need not be required to be collected in a Title V permit in order to be considered credible.

 [Section 113(a) of the Clean Air Act]

PART V OPERATIONAL FLEXIBILITY

A. ALTERNATIVE OPERATING SCENARIO (S):

B. OFF PERMIT CHANGES:

- I. Permitee may make a proposed change to equipment covered by this permit that is not expressly allowed or prohibited by this permit if:
 - A. Permitee has applied for and obtained all permits and approvals required by MDAQMD Regulation II and Regulation XII unless the equipment involved in the change is exempt from obtaining such permits and approvals pursuant to the provisions of Rule 219; and
 - 1. The proposed change is not:
 - a. Subject to any requirements under Title IV of the Federal Clean Air Act; or $[See\ 1203(E)(1)(c)(i)d]$
 - b. A modification under Title I of the Federal Clean Air Act; or
 - c. A modification subject to Regulation XIII; and [See 1203(E)(1)(c)(i) d]
 - d. The change does not violate any Federal, State or Local requirement, including an applicable requirement; and [See 1203(E)(1)(c)(i)c]
 - e. The change does not result in the exceedance of the emissions allowable under this permit (whether expressed as an emissions rate or in terms of total emissions). [See 1203(E)(1)(c)(i)e]

II. Procedure for "Off Permit" Changes

- A. If a proposed "Off Permit Change" qualifies under Part V, Section (B)(I)(A)(1) above, permitee shall implement the change as follows:
 - 1. Permitee shall apply for an Authority To Construct permit pursuant to the provisions of Regulation II. [See 1203(E)(1)(c)(i)b]
 - 2. In addition to the information required pursuant to the provisions of Regulation II and Regulation XIII such application shall include:
 - a. A notification that this application is also an application for an "Off Permit" Change pursuant to this condition; and [See 1203(E)(1)(c)(i)b]
 - b. A list of any new Applicable Requirements which would apply as a result of the change; and [See 1203(E)(1)(c)(i)b.]
 - c. A list of any existing Applicable Requirements, which would cease to apply as a result of the change. [See 1203(E)(1)(c)(i)c]

- 3. Permitee shall forward a copy of the application and notification to USEPA upon submitting it to the District. [See 1203(E)(1)(c)(i)a]
- B. Permitee may make the proposed change upon receipt from the District of the Authority to Construct Permit or thirty (30) days after forwarding the copy of the notice and application to USEPA whichever occurs later. [See 1203(E)(1)(c)(i)a and g]
- C. Permitee shall attach a copy of the Authority to Construct Permit and any subsequent Permit to Operate, which evidences the Off Permit Change to this Title V permit. [See 1203(E)(1)(c)(i)f]
- D. Permitee shall include each Off-Permit Change made during the term of the permit in any renewal application submitted pursuant to Rule 1202(B)(3)(b). [See 1203(E)(1)(c)(i)f]

III. Other Requirements:

- A. The provisions of Rule 1205 Modifications do not apply to an Off Permit Change made pursuant to this condition.
- B. The provisions of Rule 1203(G) Permit Shield do not apply to an Off Permit Change made pursuant to this condition. [See 40 CFR 70.4(b)(i)(B)] [Rule 1203(E)(1)(c)]

PART VI TITLE IV ACID RAIN PERMIT

Title IV Acid Rain Permit

Issued to: High Desert Power Project, LLC

Operated by: High Desert Power Project, LLC

Facility: High Desert Power Project, LLC

ORIS Code: 0329 – Phase II Acid Rain Source

SIC Code: 4911 – Electric Power Generation

ACID RAIN PERMIT CONTENTS

- 1. Statement of Basis
- 2. SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3. The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1. STATEMENT OF BASIS:

Statutory and Regulatory Authorities: Pursuant MDAQMD Regulation 12, Program - Federal Operating Permits, a.k.a. Title V (Adopted 7/25/94, Amended 02/22/95, Additional Rules adopted 06/28/95, 7/31/95) and 02/05/96 FR 4217 (Interim Approval), in accordance with Rule 221 - Federal Operating Permit Requirement, 40 CFR 52.220(c)(216)(i)(A)(2) - 02/05/96 61 FR 4217 and Rule 1210 - Acid Rain Provisions of Federal Operating Permits, and Titles IV and V of the Clean Air Act of 1990, the Mojave Desert Air Quality Management District issues this permit.

Description(s): SOx emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. The owner/operator shall: hold allowances, as of the allowance

transfer deadline, in the unit's compliance subaccount (after deduction under 40 CFR 73.34(c)) no less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and comply with the applicable Acid Rain emissions limitations for sulfur dioxide. NOx emissions shall be monitored by CEMS in accordance with 40 CFR 75. The owner/operator shall comply with the applicable Acid Rain emissions limitations for nitrogen oxides. The owner/operator shall comply with the requirements of the Phase II Acid Rain Permit upon the date of issuance, which is pending at the time of the initial Title V Permit Application submittal.

2. SO2 ALLOWANCES:

The facility is subject to the Acid Rain Program requirements of (§64.2(b)(1)(iii)), because of NOx, and will be subject to emission limitations or standards for which the Part 70 permit will specify a continuous compliance determination method (§64.2 (b)(1)(vi)) for CO.

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	The owner or operator and, to the extent applicable, the designated representative of a facility containing an affected unit shall comply with the monitoring requirements as set forth in 40 CFR 72.9(b) (incorporated herein by this reference) and 40 CFR 75 (incorporated herein by this reference).
Reporting	The owner or operator of a facility containing an affected unit shall comply with the requirements relating to reporting as set forth in 40 CFR 72.9(f).
Record Keeping	The owner or operator of a facility containing an affected unit shall comply with the requirements relating to recordkeeping as set forth in 40 CFR 72.9(f).
Test Methods	Not Applicable

Description(s): SOx emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. The owner/operator shall: hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deduction under 40 CFR 73.34(c)) no less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and comply with the applicable Acid Rain emissions limitations for sulfur dioxide. NOx

emissions shall be monitored by CEMS in accordance with 40 CFR 75. The owner/operator shall comply with the applicable Acid Rain emissions limitations for nitrogen oxides. The owner/operator shall comply with the requirements of the Phase II Acid Rain Permit upon the date of issuance of the initial Title V Permit.

3. STANDARD REQUIREMENTS:

- 1. Owner / Operator shall comply with all listed compliance conditions contained within this Title IV Acid Rain Permit and associated Title V Permit.
- 2. The *Statement of Basis* listed in this Acid Rain Permit complies with the elements set forth in 40 CFR 72.64. [Incorporated herein by this reference].
- 3. This Acid Rain Permit complies with the requirements set forth in 40 CFR 72.50. [incorporated herein by this reference].
- 4. Owner/Operator of High Desert Power Project, LLC shall comply with all applicable provisions of 40 CFR 72, Permits Regulation (Title IV) and their Title IV permit application as indicated in this combined, *Federal Operating Permit / Title IV Acid Rain Permit*, Part VIII. [40 CFR 72.84][40 CFR 72; Rule 1210]
- Emissions from this source/facility shall not exceed any allowances that the source/facility lawfully holds under Title IV of the Act or its regulations. [40 CFR 70.6(a)(4)]
- 6. Where an applicable requirement of the Act is more stringent than an applicable requirement of Title IV regulations, both provisions shall be incorporated into the permit and be enforceable by the Administrator. [40 CFR 70.6(a)(1)(ii)]
- 7. Notwithstanding the testing requirements contained elsewhere in this combined Title IV / V Permit, any credible evidence may be used to establish violations, including but not limited to; reference test methods, engineering calculations, indirect estimates of emissions, CEMS data, and parametric monitoring data. Data need not be required to be collected in a Title V permit in order to be considered credible. [Section 113(a) of the Clean Air Act]

PART VII CONVENTIONS, ABREVIATIONS, DEFINITIONS

A. <u>CONVENTIONS</u>

The following referencing conventions are used in this federal operating permit:

- 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS)
- 40 CFR Part 60, Appendix F, Quality Assurance Procedures
- 40 CFR Part 61, <u>National Emission Standards for Hazardous Air Pollutants</u> (NESHAPS)
- 40 CFR Part 61, Subpart M, National Emission Standards for Asbestos
- 40 CFR Part 63--National Emission Standards For Hazardous Air Pollutants For

Affected Source Categories

- 40 CFR Part 72, Permits Regulation (Acid Rain Program)
- 40 CFR Part 73, Sulfur Dioxide Allowance System
- 40 CFR Part 75, Continuous Emission Monitoring
- 40 CFR Part 75, Subpart D, Missing Data Substitution Procedures
- 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedures
- 40 CFR Part 75, Appendix C, Missing Data Estimating Procedures
- 40 CFR Part 75, Appendix D, Optional SO₂ Emissions Data Protocol
- 40 CFR Part 75, Appendix F, Conversion Procedures
- 40 CFR Part 75, Appendix G, Determination of CO₂ Emissions

B. <u>OTHER CONVENTIONS:</u>

- 1. Unless otherwise noted, a "day" shall be considered a 24-hour period from midnight to midnight (i.e., calendar day).
- 2. The process unit identifications represent the District permit number designations. These numbers are not sequential. The use of District permit numbers provides continuity between the District and Federal Operating Permit systems.

C. ABBREVIATIONS

Abbreviations used in this permit are as follows:

CFR	Code of Federal Regulations
APCO	Air Pollution Control Officer

bhp brake horsepower
Btu British thermal units

CCR California Code of Regulations

CEMS continuous emissions monitoring system

CO carbon monoxide

CO₂ carbon dioxide

District Mojave Desert Air Quality Management District (formed July 1993)
MDAQMD Mojave Desert Air Quality Management District (formed July 1993)
MD Mojave Desert Air Quality Management District (formed July 1993)
SB San Bernardino County APCD (1975 to formation of MDAQMD)

gr/dscf grains per dry standard cubic foot

gpm gallons per minute gph gallons per hour hp horse power

H&SC California Health and Safety Code

lb pounds

lb / hr pounds per hour

lb / MM Btu pounds per million British thermal units

MM Btu million British thermal units

MM Btu/hr million British thermal units per hour

MW Megawatt electrical power MW(e) net net Megawatt electrical power

NH₃ ammonia

NMOC non-methane organic compounds

NO_x oxides of nitrogen NO₂ nitrogen dioxide

 O_2 oxygen

pH (acidity measure of solution)

PM₁₀ particulate matter less than 10 microns aerodynamic diameter

ppmv parts per million by volume

psig pounds per square inch gauge pressure

QA quality assurance rpm revolutions per minute RVP Reid vapor pressure

SCAQMD South Coast Air Quality Management District

scfm standard cubic feet per minute scfh standard cubic feet per hour SIC Standard Industrial Classification SIP State of California Implementation Plan

 $\begin{array}{ll} SO_x & oxides \ of \ sulfur \\ SO_2 & sulfur \ dioxide \\ tpy & tons \ per \ year \end{array}$

TVP true vapor pressure

D. MDAQMD Rule SIP History

For Rule SIP History including approval, pending approval, etc, see:

http://www.mdaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=45